

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification by replacing the abstract with the following Replacement Abstract, which is marked to show changes relative to the original version. A clean version of the Replacement Abstract incorporating the following changes is enclosed at the end of this paper.

A method for generating a carrier residual signal and its device, in which a heterodyne optical signal used in a photometric field or an optical fiber radio communication field can be stably generated with a simplified structure. The device ~~for generating a carrier residual signal~~ includes an optical modulating unit that includes a light source ~~51~~ generating a light wave having a specific wavelength, and an SSB optical modulator ~~54~~, ~~wherein a~~ A light wave emitted from the light source enters into the optical modulating unit. A, a light wave emitted from the optical modulating unit includes a carrier component related to a zero-order Bessel function and a specific signal component related to a specific high-order Bessel function while suppressing signal components other than the specific signal component related to the specific high-order Bessel function, and a ratio of optical intensity between the carrier component and the specific signal component is set substantially to 1.

~~Preferably, the optical modulating unit includes a bypass optical waveguide 56 that connects the SSB optical modulator with an input unit and an output unit of the SSB optical modulator.~~